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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,861	03/26/2004	Yi-Hua Lu	98730-000034/US	2592
30593	7590	06/28/2005	EXAMINER	
HARNESSE, DICKEY & PIERCE, P.L.C.			HYEON, HAE M	
P.O. BOX 8910			ART UNIT	
RESTON, VA 20195			PAPER NUMBER	
			2839	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EF

<b>Office Action Summary</b>	Application No. 10/809,861	Applicant(s) LU, YI-HUA	
	Examiner Hae M. Hyeon	Art Unit 2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

The first occurring abbreviation "PCI" recited on page 1, line 24 and "USB" recited on page 2, line 16 require the full terminology.

Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Objections***

4. Claims 1 and 5 are objected to because of the following informalities:

- Claim 1, line 5, the first occurring abbreviation "PCI" requires the full terminology.
- Claim 5, line 3, the first occurring abbreviation "USB" requires the full terminology.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of the claims is indefinite because there is an inconsistency between the body and the preamble. The preamble indicates that the subcombination, a wireless interconnect device, is being claimed. However, the body contains positive limitations directed toward the computer, suggesting that applicant intends to claim the combination of the wireless interconnect device and the computer. Applicant is required to clarify what subject matter the claim is intended to be drawn to and the language of the claim must be amended to be consistent with this intent.

While the computer recited in the preamble is not positively claimed, the body of the independent claims and the dependent claims recite the structure of the computer positively. Therefore, it is not clear whether the computer is the part of the wireless interconnect device or not.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beard et al (US 6,522,299 B2) in view of Bauer et al (US Patent Application Publication No. 2003/0174099 A1).

Beard discloses a wireless interconnect device 10 comprising a wireless communication card 12 having a main body, an antenna 14 connected to the main body by a signal line 16, and a connector 18 connecting to a PCI-slot connector of a computer. However, the wireless interconnect device 10 of Beard only includes one antenna 14.

Bauer discloses a wireless system 101 comprising a main body 113, a connector 102, a first antenna 200a connected to the main body 113 by a first signal line 203a, and a second antenna 200b connected to the main body 113 by a second signal line 203b (see Prior art Figure 1). Bauer teaches that the use of multiple antennas improves the spatial coverage.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the wireless device taught by Beard such that it would have two antennas as taught by Bauer because the use of multiple antennas improves the spatial coverage.

Regarding to the communication card 12 of Beard, Beard teaches that the card 12 is a wireless network card (see, column 1, line 31). Since the Ethernet card of the claimed invention is a type of network cards, Beard's communication card 12 can be the Ethernet card.

Regarding to mini PCI or mini USB connector, it only deals with the use of different type of connectors without changing or affecting the function of the wireless device.

Regarding to placing the antennas on a top of an outer lid or a front side of a casing of the computer, it only deals with an arrangement of parts. It has been held that rearranging parts of

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an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. The antennas can be placed on any place where they can receive a better signal.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No. 5,606,732 by Vignone, Sr. and US Patent No. 5,913,174 by Casarez et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M. Hyeon whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tulsidas C. Patel can be reached on (571) 272-2098. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hae M Hyeon  
Primary Examiner  
Art Unit 2839

hnh

hnh

Hae Moon Hyeon